

# NWFP&S Marketing: Lessons Learned and New Development Paths from Case Studies in Some European Countries

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**Abstract** The paper examines key factors affecting the marketing of various types of Non-Wood Forest Products and Services (NWFP&S) through a comparative analysis of case studies in Europe, according to the main results of Working Group 3 (WG3) of the COST Action E30 ‘Economic integration of urban consumers’ demand and rural forestry production. Seventeen Italian case studies have been analysed in addition to the COST Action E30 experiences. Products and services are classified within a conceptual framework developed by the WG3 and described in detail according to three main categories: mass-produced, specialized and complementary NWFP&S. Especially this latter category can play a relevant role in improving the profitability of small and medium-scale forest-based enterprises and in maintaining competitiveness of the forest product-consumer chain in rural areas, but new marketing strategies are necessary for commercial success. Differentiation, integration and creation of networking among both private and public actors and the development of the so-called ‘territorial marketing’ are considered the most important tools for the role of complementary NWFP&S in improving the economic value of small-scale forestry in marginal areas.

**Keywords** Mass-produced · Specialized and complementary NWFP&S · Territorial marketing · Networking

## The Economic Background: NWFP&S Values in Europe

In the last 15–20 years, a growing interest towards the marketing of traditional and new Non-Wood Forest Products and Services (NWFP&S) has been recognised

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throughout Europe. NWFP&S can play an important role in improving the profitability of forest-based enterprises and maintaining competitiveness of the forest product to consumer chain. The main driving forces for this trend are: the decreasing prices of wood products; the growing demand for environmentally friendly products, and policies supporting rural development. According to the United Nations Food and Agricultural Organisation (FAO) and Economic Commission for Europe (UNECE) price database (UNECE/FAO 2007), real prices of industrial roundwood have been gradually decreasing in the last 20 years, and all major forecasts made by FAO and UNECE are for a continued decrease in real prices of wood products in the next few years.

Demand for environmentally friendly products is increasing in all highly industrialised countries (Lober and Misen 1995; Burrows and Sanness 1998). Many traditional products that were once strictly connected to the needs and consumption behaviour of low-income people are now regarded as natural health products (Meadley 1989; FAO 1995). Some ‘specialty’ food and other forest products experience greater demand than in the past, as a consequence of new fashions (e.g. ‘Mediterranean diet’, organic farming, natural medicine, aroma-therapy) (Pettenella et al. 2006).

Selling of recreational services (e.g. mushrooms collection permits) represents a much more relevant source of income for the forest managers than timber sales also in some high productive forest areas traditionally managed for wood production. Commodities that used to be considered ‘secondary products’ are often the primary source of revenue for forest managers and owners (Merlo and Croitoru 2005).

Especially in Mediterranean areas, NWFP&S play a remarkable role both in relation to commercial objectives and in terms of estimated Total Economic Value (TEV) of forests, as reported in Table 1. While wood and grazing are declining sources of income for forest owners, tourism and Non-Wood Forest Products (NWFP) are increasing in importance to support rural life, mainly in higher income countries (including the ‘northern’ Mediterranean countries of Portugal, Spain, France and Italy) (Campos Palacin 1993; Yavuz et al. 1999; Merlo and Croitoru 2005).

**Table 1** Average economic values of benefits from Mediterranean forest areas (€/ha/year)

Mediterranean areas	Wood	NWFP	Grazing	Recreation	Hunting	Total	TEV <sup>a</sup>
Southern	12	4	32	n.a.	–	48	67
Eastern	22	5	10	1	1	39	48
Northern	67	16	10	32	3	128	176
Total Mediterranean	47	12	13	21	2	95	133
Share of total (%)	49.5	12.6	13.7	22.1	2.1	100	–
Share of TEV <sup>a</sup> (%)	35.3	9.0	9.8	15.8	1.5	71.4	100

<sup>a</sup> TEV, Total Economic Value

Source: Adapted from Merlo and Croitoru (2005, p. 62)

On a global scale, NWFP produced and consumed in Europe have a leading position among the most traded NWFP in the world, as indicated in Table 2. The reduction or elimination of import tariffs, increasingly globally applicable (food) quality standards and changing consumer preferences are creating global markets for products which previously were only available locally, such as ‘specialty’ foods (Essmann et al. 2007).

Nature tourism and recreation services are currently one of the fastest growing branches in the tourism sector. In Finland, for example, during 2002–2003 the turnover growth rate for big safari enterprises reached 6.8% (Ryymin 2005). Several studies have shown that the income originating from nature tourism typically remains in the rural regions, and the sector is labour intensive (Honkala 2001;

**Table 2** Global import values of key NWFP for 1992 and 2002 (in USD 1000)

Commodity description <sup>a</sup>	1992	2002
<i>Mosses and lichens for bouquets, ornamental purposes</i>	9,352	25,476
<i>Truffles, fresh or chilled</i>	4,201	23,656
<i>Mushrooms other than Agaricus, fresh or chilled</i>	n.a.	364,412
<i>Mushrooms &amp; truffles, dried</i>	n.a.	219,458
<i>Truffles, prepared or preserved, not in vinegar</i>	3,049	11,012
Brazil nuts, fresh or dried	44,344	59,848
<i>Chestnuts, fresh or dried</i>	109,958	184,663
<i>Acorns and horse-chestnuts for animal feed</i>	1,216	7,380
Shea nuts (karite nuts)	5,155	5,136
Liquorice roots	33,455	24,310
Ginseng roots	389,345	221,435
<i>Plants &amp; parts, pharmacy, perfume, insecticide use</i>	689,926	777,980
Locust beans, locust seeds	22,395	40,239
Lac	25,286	25,653
Gum Arabic	101,312	105,510
<i>Natural gum, resin, gum-resin, balsam, not gum arabic</i>	92,755	96,535
Balata, gutta-percha, guayule, chicle and similar gums	26,726	13,605
Pyrethrum, roots containing rotenone, extracts	27,865	26,173
Bamboos used primarily for plaiting	37,562	50,054
Rattan used primarily for plaiting	118,987	51,327
Kapok	11,920	2,826
Maple sugar and maple syrup	43,632	116,202
Palm hearts, otherwise prepared or preserved	16,082	67,514
Quebracho tanning extract	51,938	45,173
Wattle tanning extract	63,877	34,168
<i>Oak or chestnut extract</i>	8,653	917
<i>Natural cork, raw or simply prepared</i>	7,874	110,702
Abaca fibre, raw ( <i>Musa textiles</i> )	15,221	20,374

<sup>a</sup> Names of products produced and consumed in European countries are written in *italics*

Source: UNSD (2002) in Pettenella et al. 2006

Finnish Ministry of the Environment 2002; Saarinen 2003). In addition, the indirect economic impacts are greater than the direct income to tourism enterprises. It has been estimated in Finland that two-thirds of the income accrues to businesses other than the actual nature tourism enterprises (Finnish Ministry of the Environment 2002).

Even if the demand for NWFP&S is increasing, there are still many obstacles to overcome before their full market potential can be realised. One of the greatest problems lies in successful marketing. The NWFP&S sector is traditionally highly product orientated (Rutanen and Luostarinen 2000; Luostarinen 2005). The companies are typically located in rural areas distant from urban customers. Especially in smaller companies the level of innovation is low (Rametsteiner et al. 2006); the companies have difficulty targeting their NWFP&S to selected customers groups, even when they have been able to develop high quality products. Besides the understanding of customers groups and their demands, there is also a need to find adequate marketing tools and funding (Matilainen and Aro 2002).

The next section describes the conceptual framework for this study, which bases on three main NWFP&S categories (mass-produced, specialized and complementary), and outlines the research method. Lessons learnt from the case studies of successful marketing development paths for different NWFP&S categories are then reported. Some concluding discussion follows.

## Research Method

This paper is based mainly on the results of individual research activities and collective discussions carried out by Working Group 3 (WG3) of the COST Action E30, a European network of scientists and professionals sharing information and experiences on the basis of a common questionnaire describing NWFP&S at national level and two or three local case studies for each participating country. Table 3 presents some examples from case studies analysed by the members of the WG3.

On the basis of WG3 discussions, a detailed additional investigation on 17 Italian case studies was carried out in 2006, with a view to improving the theoretical and logical framework for marketing development of NWFP&S in the European context initially defined in the COST Action E30. In order to carry out the investigation two major questions have been considered in this article:

- Which are the most important factors affecting the competitiveness in the NWFP&S supply chain and which are the most important problems entrepreneurs have to deal with?
- Which are the key factors affecting marketing of various types of NWFP&S and, as a consequence, which are the possible development paths in order to improve profitability of forest-based enterprises?

For the comparative analysis of the case studies a conceptual framework for NWFP&S based on the marketing strategy has been developed, as presented in

**Table 3** Examples from case studies classified within the defined conceptual framework

NWFP&S type	Products	Services
Mass-produced	Foliage (IRL)	Pick-nicking (IRL and ISL)
	Christmas trees (DK)	Water protection (GER)
	Moss (UK)	Nature conservation (A)
	Mushrooms (POL, LIT and H)	Hunting (LIT, ROM)
	Berries (FIN)	Recreation (CRO)
	Chestnuts (I, CH)	
	Cork (P)	
Specialized	Birch sap (FIN)	Bird watching (FIN)
	'Chemical free' Christmas trees (GER)	Skiing (GER)
	Chestnut specialties (CH, I)	Funeral tree services (CH, GER <sup>a</sup> )
	Truffles (I)	Environmental Education (H)
	<i>Pinus mugo</i> oil (I) <sup>a</sup>	Art in the Forest (I) <sup>a</sup>
Complementary		CO <sub>2</sub> -sequestration (ROM)
	Truffles and tourism (I and CRO)	
	Chestnut, wine and rural tourism (I)	
	Ecotourism (H and IRL <sup>a</sup> )	
	Mountain biking (UK)	
	Country holidays (NOR and LIT)	
	Biking tours (FIN) <sup>a</sup>	
	Recreation park services (ROM and IRE) <sup>a</sup>	
	Recreational services (DK)	

<sup>a</sup> Described in Jäger 2005, not included in the COST E30 Country Reports

Source: adapted from Pettenella et al. (2006)

Table 4. The framework is based on the traditional distinction between products and services (Mantau et al. 2006). NWFP are commodities or tangible materials, often perishable, and removed from the forest to supply existing or potential customers (Pettenella et al. 2006). Non-Wood Forest Services provide non-material benefits for customers or users; their profit acquisition depends mainly on the property rights regime, critical mass of supply (association and integration among producers), and transaction costs (users' control and system regulation costs).

The classic marketing definition is mainly based on two types of markets for products and services—mass markets and specialized markets—but the nature of NWFP&S is often more complex with respect to mass-produced or niche products (Pettenella et al. 2006). Thus, a third new market category has been included, namely complementary NWFP&S, which are typically based on users' joint demand for products and services, including those not strictly originating from forests. When NWFP&S are offered and consumed as complementary goods, their role in local rural development goes well beyond their single commercial value; they become an important factor (often the major one) for the successful marketing of other associated rural products and services. A complementary NWFP&S, being often the most environmentally friendly and distinctive good of

**Table 4** Characteristics of NWFP&S according to the different types of market

Market type	Products: commodities	Services: non-material goods
1. Mass market	Raw material with low level of differentiation large number of consumers easily recognized high competition, price sensitive widely available	Public goods, not well differentiated
2. Specialized market	Niche products high added value unique territories very well differentiated products high innovation	As for commodities in specialized markets, but with references to services
3. Market for complementary products and services	Products and services that alone are not able to reach a critical mass and are offered and consumed as complementary goods 'imago' products and services used to offer a network of associated products and services form a specific territory	

Source: adapted from Pettenella et al. (2006)

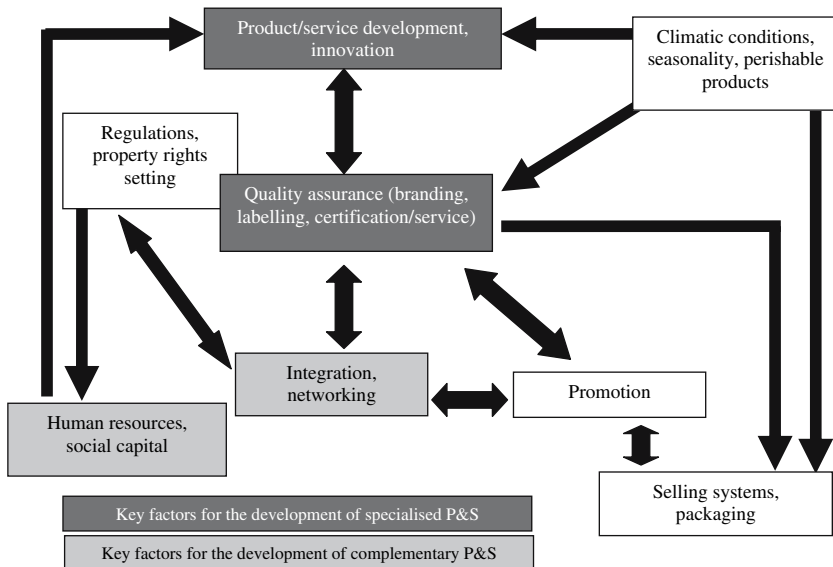
a territory, represents a driving force for marketing a network of local products and services.

According to the described conceptual framework, a tentative classification of the case studies discussed within the COST Action E30 (reported by Jäger 2005) is proposed in Table 4, which recognizes the main characteristics of NWFP&S for the three types of markets (mass, specialized and complementary products and services).

### Lessons Learnt from the Case Studies on NWFP&S

On the basis of the case studies, definitions and examples on each NWFP&S category have been developed. Special attention has been given to the most relevant key factors for NWFP&S marketing: product and service development and innovation; quality assurance, certification and labelling; regulations and property rights settings; integration and networking; human resources and social capital; promotion; packaging and selling system; and climatic conditions, seasonality and perishability of products (Font and Tribe 2000; Marshall et al. 2006). These factors are synthesized in Fig. 1.

From the case studies carried out in the COST Action E30, product and service development and quality assurance seem to be the key factors for marketing specialised NWFP&S, while the social capital (i.e. the capacity to cooperate among private and public actors as well as horizontal integrations and networking in a well characterised territory) seem to be the key factors in developing complementary NWFP&S. These analysis results are described in detail in the following sections.



**Fig. 1** Key factors for successful marketing of NWFP&S. *Source:* adapted from Pettenella et al. (2006)

## Mass-produced Products and Services

Mass-produced products are typically manufactured on a large scale, hence competition can be very high and markets are frequently over-supplied. Successful enterprises, in their strategic planning, aim at introducing products or services development and innovation in order to distinguish themselves from other producers. With little differentiation, producers can only compete on price. Grading, standardisation, branding and certification for quality assurance allow producers to improve NWFP&S differentiation, an example being foliage marketing in Ireland (Collier et al. 2004). Alternative strategies are based on cost minimisation. Mechanisation and investment in technology have been used for example to improve cost-effectiveness of some mass-produced product, e.g. for mushrooms processing in Poland (Zajac et al. 2005).

As regards regulations and property rights, in the Scandinavian countries with low population density the free-of-charge everyman's right to collect NWFP is established by common law. In Finland the availability of raw material is often a major constraint to harvesters of forest berries only in low crop years. Where product is in short supply, producers are often individualistic and competition exists for access to the best sites, e.g. for mushrooms in Hungary (Mészáros et al. 2005) and moss in UK (Slee et al. 2005). In the high densely populated countries in central and southern Europe the right to gather NWFP is frequently subject to strict rules and acquired by payment.

Several forest services provided to a large number of users (soil and water protection, biodiversity conservation, CO<sub>2</sub> sequestration, supply of recreational sites) are free of charge and accessible to everybody. Introducing mechanisms for

payments of such forest services is becoming an interesting field of innovation, in Europe (Mantau et al. 2005) and worldwide (Pagiola et al. 2002).

In the mass-produced products supply chain, especially in larger scale operations, middlemen (marketing companies, buying groups and wholesalers) are usually involved in selling the products. Some producers have introduced vertical integration as a means to attain greater control of product quality, e.g. cork producers in Portugal (Mendes and Feliciano 2005). Horizontal integration among growers or producers, with the creation of associations or networks, can increase the value of NWFP&S business activities—e.g. for chestnuts in Italy, reported by Pettenella et al. (2005)—by developing trademarks for promotion on the international market. Another example is the ‘Original Nordmann’ Christmas trees from Denmark (Helles and Thorsen 2005).

Human resources and social capital can be key factors for successful marketing of NWFP&S: the shortage of qualified people is a problem in rural, marginal areas. Personnel may need to be trained, or persons from outside the area have to be adequately motivated to move in and to stabilize the local businesses.

Other key factors for mass-produced NWFP&S are: climatic conditions and disease outbreaks, which can potentially devastate yields; seasonality (e.g. Christmas trees have to be harvested and sold over a short period of time); and perishability of products, which necessitates rapid delivery channels, appropriate storage facilities and processing. For example, some of the ways berries and mushrooms are preserved include: drying; freezing; jam, jelly and syrup production; vacuum packing; powder making and canning.

## Specialized Products and Services

Typically, specialized products and services are well differentiated, with a high added value, and are often available in limited quantities (e.g. truffles). Two types of enterprises active in this NWFP&S category can be identified:

- (1) small- and medium-sized enterprises (SMEs) with limited financial and labour resources, normally working only in the forestry sector, which are specialized on small-scale activities. Examples are birch sap collection and bird watching in Finland (Ollonqvist et al. 2005) and funerals and ecological burials in forests in Switzerland (Seeland et al. 2005).
- (2) large enterprises, not necessarily working only in the forestry sector, producing or selling a large range of goods, including some specialised products and services, such as ‘chemical free’ Christmas trees in Germany (Mantau et al. 2005) and kindergarten services in Denmark (Helles and Thorsen 2005).

Segmentation and correct customer information are important tools for markets development of these NWFP&S, since they are typically targeted to narrow customers groups. Often the NWFP&S-related business activities are launched without clear business plans or market research, on the basis of personnel interests or hobbies. Advantages of this approach are wide knowledge base and



entrepreneur's insider information; when combined to business orientation, this can be highly successful, e.g. bird watching in Finland (Ollonqvist et al. 2005) and mountain biking in UK (Slee et al. 2005).

While mass markets mainly exists for traditional products and services, many specialized products are 'new' products—examples being adventure forest parks and businessmen course centres in Denmark (Helles and Thorsen 2005) and alternative funerals in Germany (Seeland et al. 2005)—or traditional rediscovered products, which were already almost forgotten or have been out of commercial use for a long time, e.g. birch sap in Finland (Ollonqvist et al. 2005). Especially in the sector of food products, packaging and processing companies diversify their products by introducing a number of production lines. While mass-produced chestnuts were simply dried or frozen, as specialised products in Italy and Switzerland they are further processed into flour, jam or other specialties (Pettenella et al. 2005; Seeland et al. 2005).

For specialised NWFP&S, quality assurance and standardisation further developed into various certification schemes, labels and brands are important product differentiation tools, giving the possibility of premium prices. As for timber, NWFP can be certified and labelled according to various sets of standards:

- sustainable forest management and chain of custody standards, such as under the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC);
- standards for organic wild products such as those defined by International Federation of Organic Agriculture Movements (IFOAM) or by the European Commission for organic crops cultivation (under EC Regulation 2092/91);
- standards for collection, transformation and commercialisation of biological resources defined by the UNCTAD BioTrade Initiative;
- standards for fair trade defined by Fairtrade Labelling Organizations (FLO).

Examples for FSC certified NWFP&S are Christmas trees from Switzerland, oak tree bark, onion leaves and herbal trees from Denmark, and Christmas trees and greenery from Lithuania (Shanley et al. 2005). In Italy, cork is FSC certified, while the aromatic essence from *Pinus mugo* is PEFC certified. For some wild food products and specialties, quality and origin certification systems which link them to a specific territory have been developed by the EU, under the programs of: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (TSG). A forest area producing mushrooms (*Boletus edulis*) has been PGI certified, while some chestnut provenances have been certified both under these schemes and as organic products according with the EU rules (Pettenella 2001).

Certification systems have been developed also for some forest environmental services, e.g. the Carbon certification standards for forest investments developed by Société Générale de Surveillance (SGS) and by Det Norske Veritas (DNV), and the Sustainable Tourism Management standards developed by Rainforest Alliance. However, specialized non-wood forest services remain a dilemma in this context, firstly because no proper identification mechanism exists for them, and secondly

because in some cases there is a high risk of imitation by competitors (e.g. forest adventure parks, educational courses). Especially for specialised forest environmental services, property rights regulation is often a pre-requisite to developing new markets; a common legislative framework, at least at EU level, could help in supporting the development of entrepreneurial initiatives.

Well-organised integration and networking among various sectors give the enterprises the opportunity to work on their special areas of expertise, while reducing investment risks and optimizing the use of limited resources to develop high quality products and services, e.g. integration between nature tourism enterprises and travel agencies in Finland (Ollonqvist et al. 2005). As regards human resources, finding qualified staff is often a challenge for producers of specialised NWFP&S, especially when traditional techniques are required to gather them. Well trained dogs and people with a knowledge of the best sites, often considered a family secret passed down from one generation to another, are crucial for truffle collection in Italy (Pettenella et al. 2005, 2006).

For specialised NWFP&S, marketing must be carefully directed at the target groups, especially when the service is located in an area which is remote to them. For nature tourism enterprises working at international level with foreign clients, for example, advertising campaigns should be prominent when customers are planning their trips and holidays. A factor improving these types of services is often the availability of information on a cluster of well coordinated products and services.

Limited production quantities are often a problem for marketing of specialised NWFP&S. New selling systems contribute to overcome logistics problems and to reduce transportation costs, e.g. e-business for truffles specialities in Italy (Pettenella et al. 2005). Direct sales to final consumer are often adopted by small-scale or family-run operations, where products are sold at roadsides or on-farm. Formation of buyers' groups, along similar lines to those existing for fair and equitable products trade, can play a positive role in reducing transaction costs and increasing producers' profits.

Climatic conditions are sometimes a key factor for specialised NWFP&S, because adverse weather can effectively shut down a forest recreation business, and appropriate measures are needed to ensure funds are available to tide the business and its staff over such times.

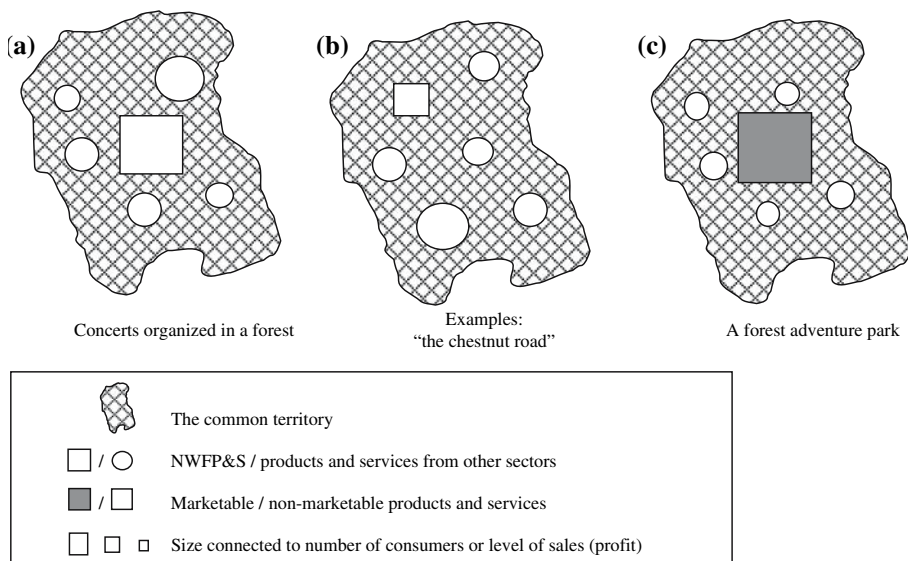
## **Complementary Products and Services**

Complementary products are those products that can be sold and used in strict association due to the synergies deriving from their joint marketing. In economic terms, they are products the demand for which is positively related so that marketing of one aids or enhances marketing of the other (Shocker et al. 2004; American Marketing Association 2006). Complementary services are seen as additional services in the product package that individualise the main offer and enhance its competitiveness (Grönroos 2000). Complementarity is connected to the diverse forms of linkages among products and services; in the markets there are diverse forms of links among products and enterprises. A fundamental link in NWFP&S

marketing is where products and services have a specific common territory. This is the field of interest of a new branch of marketing—the so-called ‘territorial marketing’. The territory is the common reference to create a consistent portfolio of products and services, and to bundle marketing efforts for their coordinated promotion, for example through trails, roads or pathways linking various enterprises’ sites, exhibitions, fairs and markets or through a common promotion policy. Examples of homogeneous territories in Italy are: a valley or a watershed or the area around a mountain group (e.g. the Ampezzo Dolomites); a National Park or other types of protected area (e.g. the Gran Paradiso National Park); an area traditionally linked to a specific product or service (e.g. the Alba territory connected to white truffles); and a forest itself (e.g. the Cansiglio forest in Veneto region) (Pettenella et al. 2005).

The COST Action E30 case studies provide evidence that territorial marketing initiatives for NWFP&S are concentrated in central and southern Europe. By analysing about 20 case studies of complementary products involving NWFP&S, three main typologies to link NWFP&S to other products and services have been identified (represented graphically in Fig. 2):

- (a) the NWFP&S is usually a non-marketed good (e.g. concerts organised in the forests, cross-country skiing trails, open-air museums) in most cases provided free of charge by local authorities, with the aim of attracting consumers which will reinforce other economic activities. Also, costs of providing the non-marketable NWFP&S can be covered by public authorities or by the beneficiaries of associated commodities sold in the territory.



**Fig. 2** Complementary NWFP&S marketing development strategies

- (b) the NWFP&S is a marketable good that takes advantage from being offered with synergies with other products and services of the same territory. Also, advantages may derive from joint promotion and consequent higher volumes of sales, increased number of clients and higher profit level, e.g. mushroom or berry picking permit sales, 'Chestnut roads' where the purchasing of chestnuts is associated with tourism and consumption of other products (e.g. wine) of the same area;
- (c) the NWFP&S is a leading marketable good offered in a territory, and other products and services from the same territory are complementing and supporting it (e.g. an equipment rental service associated to a large adventure forest park which is the leading service that obtains substantial revenue from entrance tickets).

Ease of promotion is a major advantages of creating a portfolio of coordinated products and services in a well-delimited territory, especially when SMEs are involved which have limited financial resources and competences in promotion techniques. It is normally difficult for these enterprises to gain customer's awareness, and joint marketing creates synergies among suppliers, providing higher visibility to the products and reducing the marketing costs for individual enterprises and for single products. In some cases, e-business and e-marketing have proved to be powerful tools to reduce the problems of marketing access for SMEs. Many interesting examples throughout Europe can be found on the Web related to fresh truffles, mushrooms, medicinal and aromatic herbs, honey and fresh and processed chestnuts.

In some cases it is possible to use an existing customer base for new or improved products and services, or to use the same production and marketing chains for different kind of products. The complementary services or products can help to add value or competitive advantages to the main product, diversifying its nature or its image, so that it can be targeted to new customer groups. In territorial marketing, NWFP play an interesting role as 'imago' products (i.e. a simplified and symbolic representation of territory). Even when their role in the portfolio is minor, they are used as imago to present a territory, being the most environmentally-friendly products. A good example is the 'Days of the chestnuts' event in South Tyrol (Pettenella et al. 2005), in which tourist tours are organised in autumn among farms to pick up chestnuts, to drink the new wine produced on the farms and to enjoy the rural area and food tradition. Strong imago-based benefits can be provided also by various kinds of major nature attractions, including national parks: their usually well-known imago brings substantial added value to other products and services (e.g. to local specialities, nature guiding, accommodation services) related to the parks. Also, by combining several complementary services, it is possible to create totally new innovative products. For example, it is possible to utilise fully the whole potential of a recreation area, as in the case of Cozia National Park in Romania, where the main product is successfully complemented by a combination of free-of-charge and chargeable religious-cultural-educational services (Parcul National Cozia 2007). The wide range of uses of natural resources can however lead to competition between activities and between user categories and cause conflicts

between the various kinds of interests (e.g. between nature conservation versus tourist attraction) (Pettenella et al. 2006).

Direct sales offer an alternative market channel for selling complementary products and services. They may also create opportunities to internalise the economic value of those products or services that are traditionally non-marketable or non-chargeable (e.g. attractive surrounding nature, landscape). Conversely, public non-marketable environmental services (e.g. scenery) can provide valuable competitive advantages to business activities (e.g. nature tourism private enterprises) as well as to chargeable public-supported complementary services (e.g. nature guiding), which can be provided at lower prices to visitors.

It is notable that joint marketing is frequently a field of positive co-operation between private operators and local public authorities as well as between landowners and services providers. Clear agreements on costs and benefits for each actor, responsibilities sharing, trust and knowledge, and open exchange of knowledge, are needed in the production, processing and marketing channels, both in private-public and private-private partnerships (including those between providers and subcontractors). Because complementary products are tightly connected to the main product or are part of a product package, close and well functioning co-operation among the various actors is essential for success in commercialisation of any kind of complementary NWFP&S. The role of networks (e.g. associations and institutional actors) is therefore of paramount importance. Without well-developed social capital, i.e. the willingness of local actors to share their traditional knowledge as well as to coordinate their economic activities, complementary NWFP&S marketing may not exist in a stable form.

Clear property rights regulation and equitable profit distribution among the actors can be considered key factors for successful marketing, because complementary NWFP&S can be located on public or private lands. Sometimes the landowner and service provider can be the same actor, but this is not always the case. Many tourism and recreational activities for example require close and well-functioning co-operation between the entrepreneurs and the landowners. This highlights the role of management agreements, an important area of innovation in the forest sector (especially in Southern Europe, where an extensive process of forestland abandonment is taking place). All these possible advantages and risks for complementary NWFP&S are summarized in Table 5.

## Conclusions

The analysed case studies provide evidence that interesting opportunities but also constraints exist for successful NWFP&S marketing. National and local systems of property rights regulation influence the marketing potential of NWFP&S in various socio-economic contexts. Almost each single product or service requires a different marketing strategy. Therefore, it is difficult, if not impossible, to lay down rules that would apply to the whole sector. This is also due to the large range and variety of products and services included in the NWFP&S sector which is connected with many branches of the economy and of social life (food industry, education,

**Table 5** Opportunities, advantages, risks and obstacles concerning complementary NWFP&S

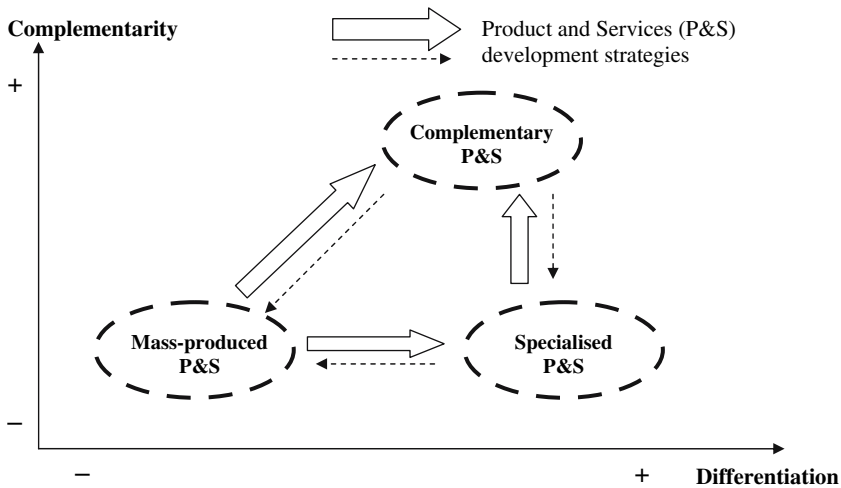
Opportunities and advantages	Risks and obstacles
More opportunities for micro entrepreneurs to reach markets/target groups.	Transaction costs.
Optimisation of limited resources for small companies.	Needs for clear responsibility sharing and agreements.
Advantages from synergies (use of same production and marketing channels, existing customer base etc.).	Strong dependency on the main product/service:
More resources (money, knowledge and time) and competencies for marketing efforts.	– susceptible to market fluctuations of the main product (trends, ‘imago’);
Opportunities to combine products and services over the sector borders: innovations.	– providers can ‘loose the power’ in marketing and production chains to the provider of the main products.
Internalisation of economic value of the non-marketable NWFP&S benefits.	Lack of effective integration with the main product and service in product development.
Added value to mass-produced products (e.g. raw material with low added value).	Unequal profit distribution among actors.
Competitive advantages for low differentiated products and services.	Malfunctioning networks and lack of effective coordination among actors.

*Source:* adapted from Pettenella et al. (2006)

recreation and tourism, decoration, medicine and health care, sport, art and music). In addition, products and services which are both marketable (food specialities, nature tourism packages) and non-marketable (landscape, clean air, biodiversity) are supplied as NWFP&S.

The boundaries between mass-produced, specialised and complementary NWFP&S are not always sharp. Complementary products and services can originate from mass-produced products and services as well as from specialised ones. A basic mass product with low added value and low market value can create a successful product when combined with some specialised services. An example is the combining of handicraft courses into selling the raw material collected from nature, such as moss or twigs. Equally, complementary products can be individually highly specialised niche products that do not reach critical mass of supply independently, and therefore need to be associated with other products. One product or service category can be transferred to another.

In many western European countries, the production of mass NWFP&S is no longer profitable due to high production costs. Due to the process of market globalisation, micro or family enterprises operating in rural marginal areas may be unable to compete in markets dominated by large and efficient actors such as, for example, the Danish producers of Christmas trees, the Albanian traders of aromatic herbs, the Irish producers of foliage, the Finnish suppliers of frozen mushrooms or the Croatian and Bosnian traders of fresh mushrooms. Labour costs, scale economies and supply critical mass are competitive factors of foreign suppliers in



**Fig. 3** NWFP&S successful marketing development strategies. *Source:* adapted from Pettenella et al. (2006)

the mass markets (Collier et al. 2004). In these situations, two strategies are possible for NWFP&S producers, based on *differentiation* or *complementarity* (as shown by Fig. 3):

- (1) transform mass-produced products or services into specialized, niche or ‘cottage’ NWFP&S (e.g. food or drink specialities), normally with high added values;
- (2) transform mass-produced or niche products or services into complementary products and services, by combining NWFP&S with non-forest services or products to offer, for example, joint recreation-forest specialities testing or environmental education-nuts picking, farm tourism or wine drinking-cultural tourism-forest recreation packages.

To increase the chance for commercial success of those enterprises operating in mass-markets, producers need to develop greater product differentiation and move up the value chain towards more innovative specialised production. In this context, a highly important tool for successful marketing is quality control, which may lead to standardisation, certification and development of company’s brands. Integration and networks among producers associations, with private-public partnerships can play relevant roles in territorial marketing. The appropriate setting and promotion of joint products and services linked with the tradition and special features of a territory require innovative and cooperative attitudes and high organisational efforts. Notably, innovation in forest resources use and management should always be fully supported by the local community, the general public and the public authorities, especially in rural areas characterised by unique and fragile environments. In this context, the European experiences confirms the assumption made by



Kotler et al. (1996) about the role in the marketing mix of the so called '4 Ps' (Price, Product, Place, Promotion), but also of the '2 Ps' added later (Public support and Political power).

Finally, fast selling systems and the use of e-business and e-marketing are important for all NWFP&S categories, especially for perishable products. External factors including climatic conditions, pests and diseases and the seasonality of demand of raw material supply are creating serious problems in marketing for nearly all NWFP&S. The best possibility to overcome these risks is the development of complementary products and services.

## Discussion

Looking at most advanced examples of marketing of forest resources in Europe, it appears that some managers and owners are shifting from a timber-based activity to a NWFP&S-based activity, thus changing their traditional product-orientated approach into a more customer-orientated one. This is an important development in their entrepreneurial capacity: NWFP&S marketing requires greater market research effort to obtain precise information on customer needs and demands. The smaller the business and the smaller the customer group, the more important are both the organisational aspects for production and supply chain, and the market research and promotion (Font and Tribe 2000; Mantau et al. 2001; Collier et al. 2004). Since normally SMEs in rural areas cannot access this information by themselves, have no critical mass of products or services to sell and lack qualified staff, external support, networking and integration are key factors for NWFP&S innovation and marketing. In this regard, assistance given by public institutions can be essential in many cases. Also, the public acknowledgement of the positive role that an active NWFP&S economy can have in supporting sustainable management of forest resources is highly important. Support of the local community and public authorities is often a pre-condition for carrying out sustainable economic activities in rural areas, especially when these are based on techniques of territorial marketing, i.e. on coordinating various cultural and nature-based resources.

Territorial marketing, network creation, differentiation and integration are important tools for strengthening the role of complementary NWFP&S. By improving this role, the SMEs can for example experience a larger customer group or establish valuable network collaborations (e.g. joint marketing strategy). By improving the profitability of forest-based SMEs, complementary NWFP&S can be particularly effective in improving the economic value of small-scale forestry and in maintaining competitiveness of the forest products consumer chain in rural areas.

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